

Appl. No. 10/709,663
Amdt. dated November 23, 2004
Reply to Office action of August 30, 2004

AMENDMENTS TO THE SPECIFICATION

1. Please replace the title with the following amended title:

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METHOD FOR MANUFACTURING A LIGHT EMITTING DIODE HAVING A TRANSPARENT SUBSTRATE AND A METHOD FOR MANUFACTURING THE SAME

2. Please replace paragraph 1, on page 3 (in the "Summary of Invention") with the
10 following amended paragraph:

The claimed invention also details a method for manufacturing the light emitting diode. The first step is to form a first multilayer on an n-type GaAs semiconductor substrate. An n-type stop layer of AlGaAs is formed on the semiconductor substrate. An n-type cladding layer of AlGaInP is formed on the n-type stop layer. An MQW light-emitting
15 layer of AlGaInP is formed on the n-type cladding layer. A p-type cladding layer of AlGaInP is formed on the MQW light-emitting layer. A p⁺-type contact layer of GaAs is formed on the p-type cladding layer. A second multilayer is formed on a sapphire substrate. An amorphous interface layer of ITO is formed on the sapphire substrate. A third multilayer is produced by placing the first multilayer on the second multilayer and
20 bonding the first multilayer to the second multilayer by elevating temperature. Next, the n-type GaAs semiconductor substrate of the newly created third multilayer is removed, and an ITO transparent conductive layer is formed on the stop layer to produce a fourth multilayer. Next, an exposed interface region is formed by etching away a portion of the
25 fourth multilayer from the ITO transparent conductive layer to the ITO amorphous interface layer. Finally, a first contact electrode and a second contact electrode are formed on the ITO transparent conductive layer and the exposed interface region, respectively.